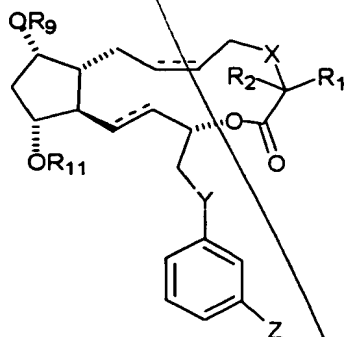


WHAT IS CLAIMED IS:

A compound of the general formula:



Formula I

wherein X is O, S, NH or CH₂;

R₁ and R₂ are the same and are either H, CH₃ or F;

R₉ is H, or C₁-C₂₀ straight chain, saturated or unsaturated or branched acyl;

R₁₁ is H, or C₁-C₂₀ straight chain, saturated or unsaturated or branched acyl;

represents any combination of a single bond, or a cis or trans double bond;

Z is H, Cl, Br, I, CF₃, CH₃, or C₁-C₁₀ straight chain or branched alkyl;

Y is O, S, NH or CH₂.

2. The compound of claim 1 wherein R₉ and R₁₁ are H; Y is O, S, or NH; and Z is CH₃.

3. The compound of claim 1 wherein X is CH₂; R₁, R₂ is H; Y is O; and Z is CF₃.

4. The compound of claim 1 wherein X is CH₂; R₁, R₂ is H; Y is O; and Z is Cl.

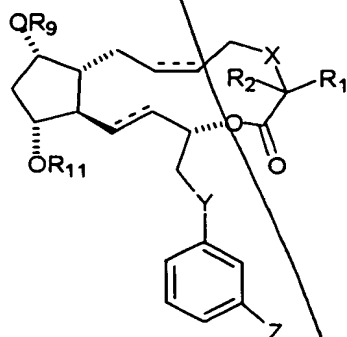
5. The compound of claim 1 wherein X is CH₂; R₁, R₂ is H; Y is CH₂; and Z is H.

6. A method of treating increased intraocular pressure in the eye of a human or animal comprising the step of:

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administering a therapeutically effective amount of at least one compound of the general formula to the eye:



Formula I

wherein X is O, S, NH or CH₂;

R₁ and R₂ are the same and are either H, CH₃ or F;

R₉ is H, or C₁-C₂₀ straight chain, saturated or unsaturated or branched acyl;

R₁₁ is H, or C₁-C₂₀ straight chain, saturated or unsaturated or branched acyl;

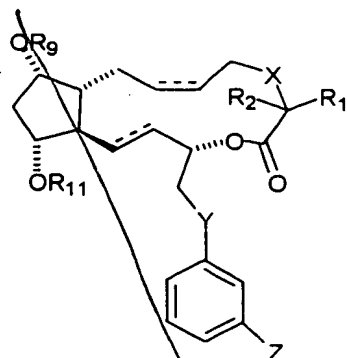
represents any combination of a single bond, or a cis or trans double bond;

Z is H, Cl, Br, I, CF₃, CH₃, or C₁-C₁₀ straight chain or branched alkyl;

Y is O, S, NH or CH₂.

7. The method of claim 6 wherein the compound is selected from the group consisting of a 1,15-lactone of fluprostenol, a 1,15-lactone of cloprostenol, and a 1,15-lactone of latanoprost.

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8. A topical ophthalmic composition for treating increased intraocular pressure comprising a pharmaceutically acceptable carrier and a therapeutically effective amount of at least one compound of the general formula:



Formula I

wherein X is O, S, NH or CH₂;

R₁ and R₂ are the same and are either H, CH₃ or F;

R₉ is H, or C₁-C₂₀ straight chain, saturated or unsaturated or branched acyl;

R₁₁ is H, or C₁-C₂₀ straight chain, saturated or unsaturated or branched acyl;

represents any combination of a single bond, or a cis or trans double bond;

Z is H, Cl, Br, I, CF₃, CH₃, or C₁-C₁₀ straight chain or branched alkyl;

Y is O, S, NH or CH₂;

9. The topical ophthalmic composition of claim 8 wherein the compound is selected from the group consisting of a 1,15-lactone of fluprostenol, a 1,15-lactone of cloprostenol, and a 1,15-lactone of latanoprost.

10. A topical formulation for treating increased intraocular pressure comprising the following ingredients by weight percent:

	Fluprostenol 1,15-lactone	0.002
15	Dextran 70	0.1
	Hydroxypropyl Methylcellulose	0.3
	Sodium Chloride	0.77
	Potassium Chloride	0.12
	Disodium EDTA	0.05
20	Benzalkonium Chloride	0.01
	HCl and/or NaOH	to pH=7.0-7.6
	Purified water	q.s. to 100%